

REMARKS

The Applicant appreciates the Examiner's careful examination of this case. Reconsideration and re-examination are respectfully requested in view of the instant amendments and remarks.

Referring to the Office Action Summary on page 1 of the Office Action, it is noted that the Examiner has rejected claims 1 – 13, that the drawings filed on 05 June 2006 are accepted, and that the certified copies of the Priority Documents have been received.

With regard to page 2 of the Office Action, under the heading Response to Amendment, the Applicant agrees with paragraph No. 1. The Applicant was much obliged to the Examiner for accepting the new corrected drawings as set out in paragraph No. 2. The Applicant was also much obliged to the Examiner for withdrawing the objections to the specification as set out in paragraph No. 3 of the Office Action, withdrawing the objections to claims 1 and 2 as set out in paragraph No. 4 of the Office Action, and withdrawing the objection to claims 4 – 13 as set out in paragraph 5 of the Office Action.

With regard to paragraph 6 of the Office Action, the Applicant was obliged to the Examiner for the suggested amendment to claim 1. The wording suggested by the Examiner has been adopted. For the avoidance of doubt, it is mentioned that at the bottom of page 2 of the Office Action, the Examiner's suggested wording for claim 1 did not refer to "a pressure transducer" after "a flow

transducer". It is believed that the Examiner intended to retain a reference to "a pressure transducer". In view of the reference to pressure signals at page 3 line 4 of the Office Action. Claim 1 as presently amended thus retains a reference to "a pressure transducer".

In paragraph 7 of the Office Action, the Examiner has objected that the following wording constitutes added material which is not supported by the original disclosure:

"In response to at least one of flow and pressure signals obtained consequent upon the person breathing into the mouthpiece"

We respectfully disagree with the objection that the above wording introduces added material which is not supported by the original disclosure. More specifically, the original disclosure specifies that there is a pressure transducer and a flow transducer. This is specified in the beginning of claim 1 of the original disclosure where there is a reference to a flow transducer and a pressure transducer. A flow transducer by definition must take a flow and produce a flow signal. Similarly, a pressure transducer by definition must take a pressure and produce a pressure signal. This is what transducers do, as is extremely well known. In the original claim 1, it is clearly stated that the apparatus includes a mouthpiece for the person. Clearly the person referred to in claim 1 has to breath into the mouthpiece.

The original disclosure, for example claim 1, makes it clear that the motor causes the variable orifice valve to vary its size. The variation in size of the variable orifice valve is clearly in response to at least one of the flow and pressure signals because page 9 lines 16 – 18 state that the microprocessor control means 8 controls the motor 12 to cause the variable orifice valve 10 to vary its orifice size and thereby to maintain constant predetermined pressures. The pressures in use of the apparatus can only come from the person blowing into the mouthpiece and so the predetermined pressures must be measured by the pressure transducer consequent upon the person breathing into the mouthpiece. Thus the reference to "maintaining constant predetermined pressures" must be in response to the signal from the pressure transducer.

With regard to the flow signals, the apparatus has been stated in the original disclosure to have a flow transducer, and it is clear that a person is blowing into the mouthpiece with a certain flow. The flow transducer by definition must give a flow signal. The variable orifice valve 10 is varying to maintain constant flow rates. These constant flow rates can only have been measured by the flow transducer. Thus it is clear that the variable orifice valve 10 is varying its orifice size consequent upon the flow signal measured by the flow transducer, see page 9 lines 19 – 23 of the original disclosure.

With regard to paragraph 9 of the Office Action, the Examiner states that the Applicant's arguments filed 05 June 2006 have been fully considered but they are not persuasive. At the end of paragraph 9 of the Office Action, the Examiner says

that, since Jiang anticipates the structure of claim 1 (excluding new subject matter), the 35 U.S.C. 102 (b) rejection of claims 1 – 4, 6 and 13 is maintained. The Applicant's response above to paragraph 7 of the Office Action shows that there has been no addition of new matter. Thus Jiang does not show the variable orifice valve having its size varied in response to at least one of flow and pressure signals obtained consequent upon the person breathing into the mouthpiece. If the Examiner agrees that there has been no addition of new matter, then Jiang will not anticipate the structure of claim 1. There is no disclosure no suggestion in Jiang of the Applicant's feature that the variable orifice valve has its orifice size varied in response to at least one of flow and pressure signals obtained consequent upon the person breathing into the mouthpiece. Insofar as the Examiner has rejected claims 2, 3, 4 and 6 over Jiang, the Applicant relies for patentability of these claims on the fact that they include all of the features of claim 1, which claim 1 is believed to be allowable for the reasons specified above. Claim 13 has been deleted.

In paragraph 11 of the Office Action, the Examiner has rejected claim 1, 2 and 6 – 12 as being anticipated by Holsher, US 5,630,411A. In paragraph 12 of the Office Action, the Examiner has rejected claims 1 – 4 and 13 as being anticipated by Hillsman, WO 98/14115A. In view of the citation of Holsher and Hillsman, claim 1 is proposed to be amended by specifying that the variable orifice valve (10) is a rotary variable orifice valve (10) comprising a cylindrical member (46), a longitudinally extending bore (48) in the cylindrical member (46), a lateral aperture (50) positioned in a wall of the cylindrical member (46) and between ends

of the cylindrical member (46), a sleeve (52), a longitudinally extending bore in the sleeve (52), and a lateral aperture (44) positioned in a wall of the sleeve (52) between ends of the sleeve (52). For the Examiner's convenience, we have added the stated reference numerals after the parts so that the Examiner can easily see that new material has not been added. Holsher and Hillsman do not disclose the features in the amended claim 1 including the combination of the first feature of the variable orifice valve having its orifice size varied in response to at least one of flow and pressure signals obtained consequent upon a person breathing into the mouthpiece, and the second feature of the variable orifice valve being a rotary variable orifice valve of the specific structure referred to at the bottom of the presently proposed claim 1.

Insofar as the Examiner is rejecting claims 2 and 6 - 12 over Holsher, the Applicant relies for the patentability of these claims on the fact that they include all of the features of claim 1, and claim 1 is believed to be allowable for the reasons specified above. Insofar as the Examiner is rejecting claims 2 - 4 and 13 over Hillsman, the Applicant relies for the patentability of claims 2 - 4 on the fact that they include all of the features of claim 1, and claim 1 is believed to be allowable for the above mentioned reasons. Claim 13 has been deleted in view of the amendments made to claim 1.

In paragraph 13 of the Office Action, the Examiner has rejected claim 5 as unpatentable over Jiang and further in view of Bacaner et al, US 4,966,141. The Applicant relies for patentability of claim 5 on the fact that claim 5 includes all of the

features of the amended claim 1. This amended claim 1 is believed to be patentable over Jiang for the reasons stated above. The combination of Jiang and Bacaner has not produced all of the features of the amended claim 1.

In paragraph 14 of the Office Action, the Applicant has rejected claim 7 - 12 as unpatentable over Jiang, as applied to claim 6 above. The Applicant relies for the patentability of claims 7 - 12 on the fact that these claims include of the features of claim 1, and claim 1 is believed to be allowable over Jiang for the reasons stated above.

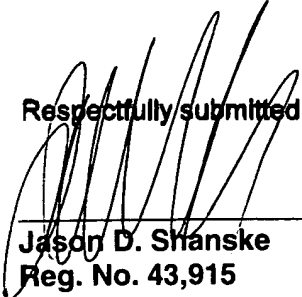
With regard to paragraph 15 of the Office Action, the Applicant has noted that the Office Action was made Final.

CONCLUSION

Each of the Examiner's rejections has been addressed or transversed. It is respectfully submitted that this application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with Counsel would help advance prosecution, please telephone the undersigned or one of his associates, collect in Waltham, Massachusetts, at (781) 890-5678.

Respectfully submitted,



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